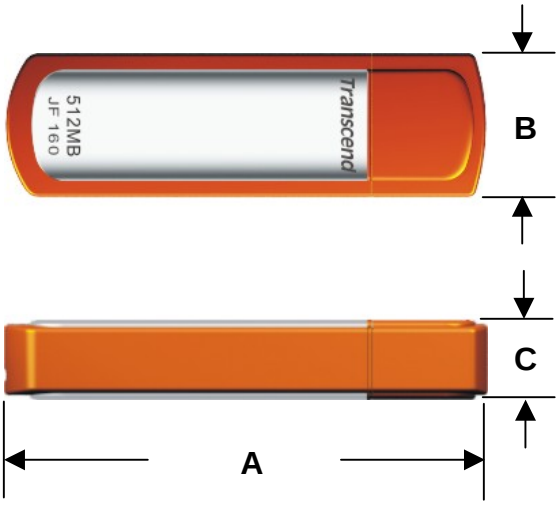
TS512MJF160

512MB USB2.0 JetFlash™

Description

TS512MJF160 is a 512MB USB Flash Drive with 1 pcs of 512Mx8 Flash Memory assembled on a printed circuit board.

Outline



Features

- Color: Amber
- USB 2.0 compatible, true Plug and Play
- Powered directly via the USB port. No external power or battery needed
- PC-Lock Function: Makes JetFlash160 the key to your computer
- Partition & Security Function: Partition JetFlash160 and create a private partition with password protection
- Boot-Up Function: Makes JetFlash160 a bootable device
- LED indicates the usage status of JetFlash160

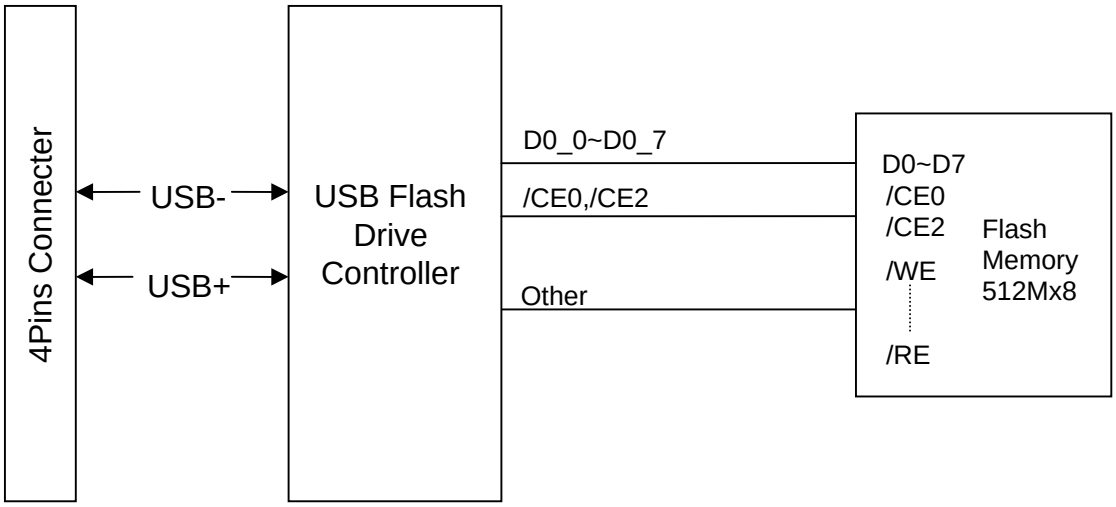
System Requirement

- Hardware: Desktop or notebook computer with USB port
- Operating System: Windows® 98SE, Windows® Me, Windows® 2000, Windows® XP and Mac™ OS 9.0 or later, Linux™ Kernel 2.4.2 or later

Dimensions

Side	Millimeters	Inches
A	61 ± 1.00	2.40 ± 0.04
B	18.6 ± 1.00	0.73 ± 0.04
C	9.8 ± 1.00	0.39 ± 0.04

Block Diagram



Pinouts

Pin No.	Pin Name
01	VCC
02	USB-
03	USB+
04	VSS

Pin Identification

Symbol	Function
USB-	USB differential signal:
USB+	The pairs are used to transmit Data/Address/Command
VSS	Ground
VCC	USB power input

Specifications

Storage Capacity	512MB
Data Retention	10 years
Erase Cycles	>100,000 times
Connector Durability	10,000 times
System Performance	Read: 12MB/sec (max.), Write: 8MB/sec (max.)
Power Supply	DC 5V±10% via the USB port
Temperature Range	Operation: 0-70^{o}C, Non-Operating: -40^{o}C-85^{o}C
Weight	10g
Certificates	CE, FCC, BSMI

Absolute Maximum Ratings

Symbol	Parameter	Rating	Unit
V_{CC}	Power Supply	4.5 to 5.5	V
V_{IN}	Input Voltage	-0.3 to 3.6	V
V_{CC18}	Internal Power Supply	-0.3 to 2.0	V

DC Characteristics: T_{OPR}=0℃~70℃；V_{IN}=3.3V；V_{CC18}=1.8V

Symbol	Parameter	Min.	Max.	Units
$V_{IH\ TTL}$	TTL Input High Voltage	2	V_{IN}+0.3	V
$V_{IL\ TTL}$	TTL Input Low Voltage	-0.3	0.8	V
$V_{OH\ TTL}$	TTL Output High Voltage	$0.9V_{IN}$		V
$V_{OL\ TTL}$	TTL Output Low Voltage		0.45	V
$I_{OH\ TTL}$	TTL Output High Current	-4		V
$I_{OL\ TTL}$	TTL Output Low Current		4	V
V_{IH_USB}	USB Input High Voltage for Low-/full-speed	2.0		V
V_{IIL_USB}	USB Input Low Voltage for Low-/full-speed		0.8	V
$V_{I_USB_DIFF}$	Differential Input Sensitivity for Low-/full-speed	TBD		V
$V_{I_USB_CM}$	Differential Common Mode Input Range for Low-/full-speed	0.8	2.5	V
$V_{I_USB_HSSQ}$	USB High-speed squelch Input detection threshold	0.1	0.15	V
$V_{I_USB_HSDSC}$	USB High-speed disconnect Input detection threshold	0.525	0.625	V
$V_{I_USB_HSCM}$	USB High-speed Signaling Common Mode Range	-0.05	0.5	V
V_{OH_USB}	USB Output High Voltage for Low-/full-speed	2.8	3.6	V
V_{OL_USB}	USB Output Low Voltage for Low-/full-speed	0	0.3	V
$V_{OH_USB_HS}$	USB Output High Voltage for High-speed	0.36	0.44	V
$V_{OL_USB_HS}$	USB Output Low Voltage for High-speed	-0.01	0.01	V
I_{OH_USB}	USB Output High Current for Low-/full-speed	-10		V
I_{OL_USB}	USB Output Low Current for Low-/full-speed		10	V
$I_{OH_USB_HS}$	USB Output High Current for High-speed	40		V
$I_{OL_USB_HS}$	USB Output Low Current for High-speed		40	V

AC Characteristics:

Symbol	Parameter	Min.	Typ.	Max.	Units
TP_{ILH}	Input Rising Delay	0.61 (0.8pF)	0.72 (2.4pF)	0.92 (4.8pF)	ns
TP_{IHL}	Input Falling Delay	0.88 (0.8pF)	1.03 (2.4pF)	1.24 (4.8pF)	ns
TP_{OLH}	Output Rising Delay	2.40 (10pF)	3.42 (30pF)	4.88 C	ns
TP_{OHL}	Output Falling Delay	2.61 (10pF)	3.62 (30pF)	5.03 (30pF)	ns
TR	Output Rising Time	2.26 (10pF)	4.45 (30pF)	7.89 (30pF)	ns
TF	Output Falling Time	1.90 (10pF)	3.63 (30pF)	6.23 (30pF)	ns

Recommended Operating Conditions

Symbol	Parameter	Min.	Typ.	Max.	Units
V_{CC}	Power Supply Voltage	4.5	5	5.5	V
V_{IN}	Input Voltage	3.0	3.3	3.6	V
V_{CC18}	Internal Power Supply	1.62	1.8	1.98	V

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